Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Currently amended)   A method of granting access to content on a storage medium, said method comprising the steps of:

obtaining cryptographic data from a property of the storage medium;

reading helper data from the storage medium; and

granting the access based on an application of a delta-contracting function to the cryptographic data and the helper data based on an output value, wherein the helper data defines ranges of values for the cryptographic data and the delta-contracting function defines a corresponding output value for each range of values for the cryptographic data.

2.   (Previously presented)   The method as claimed in claim 1, wherein said method further comprises the step of:

deriving a decryption key for decrypting the content at least from the application of the delta-contracting function.

3.   (Previously presented)   The method as claimed in claim 2, wherein said step of deriving a decryption key further derives the decryption key from data supplied by a playback or recording apparatus.

4.   (Currently amended)   The method as claimed in claim 1, wherein the access is granted if the output value of the delta-contracting function corresponds to a control value recorded on the storage medium.

5.   (Previously presented)   The method as claimed in claim 4, wherein said method further comprises the steps of:

applying a cryptographic function to the output of the delta-contracting function; and

comparing the output of the cryptographic function to the control value.

6.   (Previously presented)   The method as claimed in claim 5, wherein the cryptographic function is a one-way hash function.

7.   (Previously presented)   The method as claimed in claim 1, wherein the delta-contracting function involves a combination of a matrix multiplication on the cryptographic data, a linear addition of at least a portion of the helper data, a quantization in which the quantization areas are defined by a portion of the helper data, and error correction decoding.

8.   (Currently amended)   A device arranged for granting access to content on a storage medium, said device comprising:

first reading means for obtaining cryptographic data from a property of the storage medium;

second reading means for reading helper data from the storage medium; and

access control means for granting the access based on an application of a delta-contracting function to the cryptographic data and the helper data based on an output value, wherein the helper data defines ranges of values for the cryptographic data and

the delta-contracting function defines a corresponding output value for each range of values for the cryptographic data.

9. (Currently amended) A playback and/or recording apparatus comprising:

playback/recording means for playing back and/or recording data to a storage medium; and

a device arranged for granting access to content on the storage medium, said device comprising:

first reading means for obtaining cryptographic data from a property of the storage medium;

second reading means for reading helper data from the storage medium; and

access control means for granting access to the storage medium by the playback/recording means based on an application of a delta-contracting function to the cryptographic data and the helper data based on an output value, wherein the helper data defines ranges of values for the cryptographic data and the delta-contracting function defines a corresponding output value for each range of values for the cryptographic data.

10. (Previously presented) A computer-readable medium having a computer program product recorded thereon, said computer program product being arranged to cause a processor to execute the method of claim 1.

11. (New) The method as claimed in claim 1, wherein the property of the storage medium is a physical property of the storage medium.

12. (New) The method as claimed in claim 11, wherein the physical property of the storage medium is variations in a physical parameter of the storage medium.

13. (New) The method as claimed in claim 12, wherein the variations in the physical parameter of the storage medium are naturally occurring variations in the physical parameter.

14. (New)   The method as claimed in claim 11, wherein the physical property of the storage medium is wobble of the storage medium.

15. (New)   The method as claimed in claim 11, wherein the storage medium is a pressed storage medium and the physical property of the storage medium is an aberration that occurred during the pressing process of the storage medium.

16. (New)   The method as claimed in claim 1, wherein the storage medium includes disordered, scattering media, the method comprising acts of:

exciting the disordered, scattering media with a laser beam; and

receiving a resulting light pattern from the excited disordered, scattering media, wherein the physical property of the storage medium is determined from the received resulting light pattern.